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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,754	02/28/2007	Hisashi Inaba	1034290-000007	3796

21839 7590 01/14/2008
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POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER	
AKBAR, MUHAMMAD A	
ART UNIT	**PAPER NUMBER**
2618	

NOTIFICATION DATE	DELIVERY MODE
01/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/594,754	INABA ET AL.	
	Examiner	Art Unit	
	Muhammad Akbar	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/28/07,02/20/07,9/29/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claim 1-12 have been cancelled. Claim 13-32 are pending in this application.

Claim Objection

2. Claim 31 is objected to because of the following informalities: the claim number " 30 " should be replaced with claim number -- 31--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 13-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara (U.S. Pub. No. 2002/0025823 A1) and in view of Mafune et al (U.S. Patent No. 7,102,487 B2).

Regarding claim 13, Hara discloses stationary device (20 of fig.1A) mounted on the vehicle (i.e. an on-vehicle radio device) that acquires identification code information for unlocking a lock device of a vehicle from a portable radio device (10 of fig.1B) having said identification code information stored (i.e. recorded) therein by radio communication with said portable radio device (see fig.1A,1B,9A,9B and para [0018] [0021], [0033],[0062]) comprising:

human detection means of detecting a person hands by detector (see para[0159]);

variable frequency signal generating (i.e. measuring signal intensity of requesting signal and determine position by verification signal and adjusting response signal) (see fig. 1B, 2,6 and para[0016],[0025]) ;

band changing means of changing the frequency band (i.e. changing frequency band 100 KHz to 200 KHz) in accordance with a detection signal of said person's hand by door knob sensor (i.e. intensity of signal) (see fig. 1B, 2 and para[0059],[0159]);

radio transmitting means of transmitting the signal generated by variable frequency signal generator of the radio device mounted on the vehicle (i.e. generating a various signal intensity) to the outer space (see fig. 1B, 2 and para[0015],[0028]);

transmission characteristics changing means changing the transmission characteristics (i.e. changing signal intensity due to position of portable device 10 and vehicle position change, see fig.2) of said radio transmitting signal which is adapted to the frequency band in accordance to change signal intensity code (see fig. 1a,1B, 2,4B,5 and para[0082];[0094],[0115]).

But Hara silent about generating signal and band changing filter that remove unwanted frequency band.

However, Mafune et al teaches lock /unlock device of the vehicle and detect motion of the person hands (same field of endeavor) comprising portable unit (10 of fig.1A) and main device (20 of fig. 1A) mounted on the vehicle (see col.5 lines 16-19) wherein oscillator device (34 of fig.1B) generates sinusoidal variable frequency signal (i.e. 500 MHz- 1 GHz) (see fig. 1B and col.6 lines 59-67);

Mafune further discloses a high pass filter (see fig.2A) for filtering the frequency band according to the detection of the signal(see col.7 lines 29-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the on vehicle device control unit comprising

transceiver circuit and control circuits (as taught by Hara) by incorporating oscillator and filter for generating variable frequency and filtering the unwanted frequency band (as taught by Mafune) to obtain faster and accurately signal detection of targeted object at various distances from the vehicle as well as power consumption.

Regarding claim 14, Hara discloses stationary device (20 of fig.1A) mounted on the vehicle (i.e. an on-vehicle radio device) that acquires identification code information for unlocking a lock device of a vehicle from a portable radio device (10 of fig.1B) having said identification code information stored (i.e. recorded) therein by radio communication with said portable radio device (see fig.1A,1B,9A,9B and para[0018] ,[0021],[0033],[0062]) comprising:

radio wave measuring means measuring radio wave intensity in the outer space by portable device (10) of said on-vehicle radio device (20) for each of predetermined communication frequency code and verified authentication code (see fig.1A,1B,4B and para [0018],[0059]);

variable frequency signal generating (i.e. measuring signal intensity of requesting signal and determine position by verification signal and adjusting response signal) (see fig. 1B, 2,6 and para[0016],[0025]) ;

band changing means of changing the frequency band (i.e. changing frequency band 100 KHz to 200 KHz) in accordance with a detection signal of said person's hand by door knob sensor and measure the most preferable value of radio wave intensity (i.e. lowest signal intensity) (see fig. 1B, 2 and para[0018],[0059],[0159]);

radio transmitting means of transmitting the signal generated by variable frequency signal generator of the radio device mounted on the vehicle (i.e. generating a various signal intensity) to the outer space (see fig. 1B, 2 and para[0015],[0028]);

transmission characteristics changing means changing the transmission characteristics (i.e. changing signal intensity due to position of portable device 10 and vehicle position change, see fig.2) of said radio transmitting signal which is adapted to the frequency band in accordance to change signal intensity code (see fig. 1a,1B, 2,4B,5 and para[0082];[0094],[0115]).

But Hara silent about generating signal and band changing filter that remove unwanted frequency band.

However, Mafune et al teaches lock /unlock device of the vehicle and detect motion of the person hands (same field of endeavor) comprising portable unit (10 of fig.1A) and main device (20 of fig. 1A) mounted on the vehicle (see col.5 lines 16-19) wherein oscillator device (34 of fig.1B) generates sinusoidal variable frequency signal (i.e. 500 MHz- 1 GHz) (see fig. 1B and col.6 lines 59-67); and Mafune further discloses a high pass filter (see fig.2A) for filtering the frequency band according to the detection of the signal(see col.7 lines 29-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the on vehicle device control unit comprising transceiver circuit and control circuits (as taught by Hara) by incorporating oscillator and filter for generating variable frequency and filtering the unwanted frequency band (as

taught by Mafune) to obtain faster and accurately signal detection of targeted object at various distances from the vehicle as well as power consumption.

Regarding claim 15, as discussed above with respect to claim 13, Hara further discloses control mode changes operation code upon detecting a person hand close to the vehicle door knob (see fig.2 and para [0159]).

Mafune further teaches detector (30 of fig 1A) detecting the person's hand or motion of the person's hand and set the frequency band (see fig.1A and col.7 lines 54-67, col.8 lines 29-50).

Regarding claim 16, as discussed above with respect to claim 14, Hara further discloses radio measuring means measures radio wave intensity when said on-vehicle radio device is in a transmission wait state (see fig. 1B,2 and para 0059]).

Mafune further teaches measuring wave intensity when said on-vehicle radio device is in a transmission wait state by delay circuit (see fig.1B and col.5 lines 61-67).

Regarding claim 17, as discussed above with respect to claim 13, Hara further discloses the frequency band of a signal transmitted from said portable radio device (10 of fig. 1A) to said on- vehicle radio device (20) is set higher than the frequency of the signal transmitted from said on-vehicle radio device (20) to said portable radio device (10) (see fig. 1B,2 and para [0116]).

Regarding claim 18,19, as discussed above with respect to claim 13, Hara further discloses variable frequency signal code transmitted to said portable radio device (10) based on distance discrete variable values stored in a table (see fig. 2,4B and para [0059] ,[0060],[0086]).

Mafune further teaches oscillator device (34 of fig.1B) generates sinusoidal variable frequency signal (i.e. 500 MHz- 1 GHz) and modulates a predetermined code (authentication ID stored in the memory) with the carrier wave thereby generating the signal to be transmitted to said portable radio device (10) (see fig. 1A,1B and col.6 lines 16-29).

Regarding claim 20, as discussed above with respect to claim 13, Mafune further teaches band changing means has a digital filter (41) that removes unwanted frequency band that is not necessary for transmission to said portable radio device (10) based on a predetermined coefficient (i.e. distance, intensity, ID code), and changes said coefficient in accordance with the changed frequency band of the signal generator (34a) (see fig. 4A,4B,4C and col.6 lines 59-67, col.7 lines 29-67).

Regarding claim 21, as discussed above with respect to claim 14, Hara further discloses the frequency band of a signal transmitted from said portable radio device (10 of fig. 1A) to said on- vehicle radio device (20) is set higher than the frequency of the signal transmitted from said on-vehicle radio device (20) to said portable radio device (10) (see fig. 1B,2 and para [0116]).

Regarding claim 22,23, as discussed above with respect to claim 14, Hara further discloses variable frequency signal code transmitted to said portable radio device (10) based on distance discrete variable values stored in a table (see fig. 2,4B and para [0059],[0060],[0086]).

Mafune further teaches oscillator device (34 of fig.1B) generates sinusoidal variable frequency signal (i.e. 500 MHz- 1 GHz) and modulates a predetermined code (authentication ID stored in the memory) with the carrier wave thereby generating the signal to be transmitted to said portable radio device (10) (see fig. 1A,1B and col.6 lines 16-29).

Regarding claim 24, as discussed above with respect to claim 14, Mafune further teaches band changing means has a digital filter (41) that removes unwanted frequency band that is not necessary for transmission to said portable radio device (10) based on a predetermined coefficient (i.e. distance, intensity, ID code) and changes said coefficient in accordance with the changed frequency band of the signal generator (34a) (see fig. 4A,4B,4C and col.6 lines 59-67, col.7 lines 29-67).

Regarding claim 25, as discussed above with respect to claim 15, Hara further discloses the frequency band of a signal transmitted from said portable radio device (10 of fig. 1A) to said on- vehicle radio device (20) is set higher than the frequency of the signal transmitted from said on-vehicle radio device (20) to said portable radio device (10) (see fig. 1B,2 and para [0116]).

Regarding claim 26,27, as discussed above with respect to claim 15, Hara further discloses variable frequency signal code transmitted to said portable radio device (10) based on distance discrete variable values stored in a table (see fig. 2,4B and para [0059],[0060],[0086]).

Mafune further teaches oscillator device (34 of fig.1B) generates sinusoidal variable frequency signal (i.e. 500 MHz- 1 GHz) and modulates a predetermined code (authentication ID stored in the memory) with the carrier wave thereby generating the signal to be transmitted to said portable radio device (10) (see fig. 1A,1B and col.6 lines 16-29).

Regarding claim 28, as discussed above with respect to claim 15, Mafune further teaches band changing means has a digital filter (41) that removes unwanted frequency band that is not necessary for transmission to said portable radio device (10) based on a predetermined coefficient (i.e. distance, intensity, ID code) and changes said coefficient in accordance with the changed frequency band of the signal generator (34a) (see fig. 4A,4B,4C and col.6 lines 59-67, col.7 lines 29-67).

Regarding claim 29, as discussed above with respect to claim 16, Hara further discloses the frequency band of a signal transmitted from said portable radio device (10 of fig. 1A) to said on- vehicle radio device (20) is set higher than the frequency of the signal transmitted from said on-vehicle radio device (20) to said portable radio device (10) (see fig. 1B,2 and para [0116]).

Regarding claim 30,31, as discussed above with respect to claim 16, Hara further discloses variable frequency signal code transmitted to said portable radio device (10) based on distance discrete variable values stored in a table (see fig. 2,4B and para [0059],[0060],[0086]).

Mafune further teaches oscillator device (34 of fig.1B) generates sinusoidal variable frequency signal (i.e. 500 MHz- 1 GHz) and modulates a predetermined code (authentication ID stored in the memory) with the carrier wave thereby generating the signal to be transmitted to said portable radio device (10) (see fig. 1A,1B and col.6 lines 16-29).

Regarding claim 32, as discussed above with respect to claim 16, Mafune further teaches band changing means has a digital filter (41) that removes unwanted frequency band that is not necessary for transmission to said portable radio device (10) based on a predetermined coefficient (i.e. distance, intensity, ID code) and changes said coefficient in accordance with the changed frequency band of the signal generator (34a) (see fig. 4A,4B,4C and col.6 lines 59-67, col.7 lines 29-67).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (7.96)

The following patent are cited to further show the state of the art with respect to clips and bookmarks in general:

U.S. Patent No. 7,053,499 to Fischer et al teaches antitheft device for a motor vehicle and method for operating antitheft device.

U.S. Patent No. 6,140,914 to Mueller et al teaches vehicle security system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muhammad Akbar whose telephone number is (571)-270-1218. The examiner can normally be reached on Monday- Thursday (8:00 A.M.-5:00P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA

1-07-08

LANA LE
PRIMARY EXAMINER